

AMENDMENTS TO THE CLAIMS

Claims 1-19 (Canceled)

20. (New) A router device for relaying data between a first network and a second network, the router device comprising:

communication data receiving means for receiving communication data including at least one address of a destination from the first network;

communication data storing means for storing therein the at least one communication data received by the communication data receiving means;

communication data sending means for sending the communication data to the second network;

communication data temporal storing means for temporarily storing therein the communication data sent to the second network by the communication data sending means;

destination comparing means for comparing the destination included in the one or more communication data stored in the communication data storing means with the destination included in the communication data stored in the communication data temporal storing means one by one;

communication data transmission controlling means for designating the communication data sending means to transmit the communication data stored in the communication data storing means if a comparison result by the destination comparing means indicates destination matching or if no communication data to be compared is stored in the communication data temporal storing means; and

communication data erasing means for erasing the transmitted communication data from the communication data storing means in response to sending the communication data to the second network by the communication data sending means.

21. (New) The router device according to claim 20, wherein

the communication data transmission controlling means repeats a processing of designating the communication data sending means to transmit the communication data stored in the communication data storing means until no communication data is stored in the communication data storing means if the comparison result by the destination comparing means indicates

destination matching or if no communication data to be compared is stored in the communication data temporal storing means.

22. (New) The router device according to claim 20, further comprising basic data number counting means for counting the number of basic data included in the communication data received by the communication data receiving means, the basic data representing processing contents, wherein

the communication data receiving means includes basic data number information representing the number of basic data counted by the basic data number counting means in the received communication data.

23. (New) The router device according to claim 20, further comprising received time measuring means for measuring a time when the communication data has been received by the communication data receiving means, wherein

the communication data receiving means acquires received time information representing the received time measured by the received time measuring means, and includes the acquired received time information in the received communication data in response to receiving the communication data from the first network.

24. (New) The router device according to claim 20, wherein

the communication data includes data type information representing a type of control, and parameter information representing setting contents in association with the data type information,

the router device further includes data type comparing means for comparing the data type information included in the communication data stored in the communication data storing means with the data type information included in the communication data stored in the communication data temporal storing means, and

the communication data transmission controlling means extracts the parameter information included in the communication data stored in the communication data storing means and designates the communication data sending means to transmit the extracted parameter information as the communication data if a comparison result by the destination comparing means indicates

destination matching and if a comparison result by the data type comparing means indicates data type matching.

25. (New) The router device according to claim 20, further comprising data contents comparing means for comparing data contents of the communication data stored in the communication data storing means with data contents of the communication data stored in the communication data temporal storing means, wherein

the communication data transmission controlling means counts the number of communication data having the same destination and the same data contents, as a result of comparison by the destination comparing means and as a result of comparison by the data contents comparing means, and designates the communication data sending means to transmit same data number information representing the number of the communication data having the same destination and the same data contents counted by the communication data transmission controlling means.

26. (New) The router device according to claim 20, wherein a transmission rate of a transmission medium of the first network is higher than a transmission rate of a transmission medium of the second network.

27. (New) The router device according to claim 20, further comprising broadcast message receiving registering means for pre-registering an apparatus which is required to receive the communication data as a broadcast message among the apparatuses connected to the first network and the second network, wherein

the communication data sending means sends the communication data solely to the apparatus which is connected to the second network and is pre-registered by the broadcast message receiving registering means if the communication data transmitted from the first network and received by the communication data receiving means is judged to be the broadcast message.

28. (New) A routing method for relaying data between a first network and a second network, the routing method comprising:

a communication data receiving step of receiving communication data including at least one address of a destination from the first network;

a communication data storing step of storing the at least one communication data received in the communication data receiving step into communication data storing means;

a communication data sending step of sending the communication data to the second network;

a communication data temporal storing step of temporarily storing the communication data sent to the second network in the communication data sending step into communication data temporal storing means;

a destination comparing step of comparing the destination included in the one or more communication data stored in the communication data storing means with the destination included in the communication data stored in the communication data temporal storing means one by one;

a communication data transmission controlling step of designating to transmit the communication data stored in the communication data storing means if a comparison result in the destination comparing step indicates destination matching or if no communication data to be compared is stored in the communication data temporal storing means; and

a communication data erasing step of erasing the transmitted communication data from the communication data storing means in response to sending the communication data to the second network in the communication data sending step.

29. (New) A computer-readable recording medium recorded with a routing program for relaying data between a first network and a second network, the routing program causing a computer to function as:

communication data receiving means for receiving communication data including at least one address of a destination from the first network;

communication data storing means for storing therein the at least one communication data received by the communication data receiving means;

communication data sending means for sending the communication data to the second network;

communication data temporal storing means for temporarily storing therein the communication data sent to the second network by the communication data sending means;

destination comparing means for comparing the destination included in the one or more communication data stored in the communication data storing means with the destination included in the communication data stored in the communication data temporal storing means one by one;

communication data transmission controlling means for designating the communication data sending means to transmit the communication data stored in the communication data storing means if a comparison result by the destination comparing means indicates destination matching or if no communication data to be compared is stored in the communication data temporal storing means; and

communication data erasing means for erasing the transmitted communication data from the communication data storing means in response to sending the communication data to the second network by the communication data sending means.